Constraints and Opportunities Report

Lafferty Ranch, Petaluma, California

July, 1997

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and the water treatment plant closed. The treatment plant property was declared surplus property and sold. The Lawler Reservoir was also deemed surplus and was to be sold to the property owner whose property surrounds the reservoir (access to the 13-acre reservoir site is restricted to maintenance of the reservoir for water supply; there is no public access allowed). The City rescinded the order to surplus the property in 1995 when the Lafferty Ranch controversy arose.

The City currently obtains virtually all of its water from the Sonoma County Water Agency; there are a few wells that are used for landscape irrigation.

Because the City has water rights to water in Adobe Creek, the City petitioned the State Division of Water Rights to transfer these water rights to be used for fish and wildlife habitat enhancement downstream of a lower diversion point (south of Lafferty Ranch). On June 2, 1997. the State Water Resources Control Board (Division of Water Rights) approved this petition to allow waters previously used for municipal purposes to be dedicated to instream uses. The maximum entitlement was established as not to exceed the capacity of the previously existing Lawler Water Treatment Plant which was 1.2 cubic feet per second on a continuous basis.

On the Lafferty Ranch property, there is a spring box located near the pond at the southwest end of the property. There is a pipe that diverts water from this spring box to Adobe Creek. The water from this spring box was used to augment flows in Adobe Creek. The diversion pipe is still in place and functioning. Filed observations in July, 1997 showed the streambed was dry above this pipe outlet, indicating that the springbox diversion was providing much of the streamflow below this point (though undoubtedly subsurface flows from further upstream also contribute surface flows further downstream).

The boards in the diversion facility at the south end of the property have been removed, though the concrete abutments are still in place. There is about a 10 to 12-foot drop in the stream elevation at this old diversion point. Mr. Simmons reviewed this diversion facility with Bill Cox of the Department of Fish and Game. Mr. Cox stated that the remains of the facility need not be removed from a fishery perspective since there is little fish habitat above the facility (field observation showed that it was about 100 yards from this diversion facility to the springbox pipe outlet, and above that outlet the streambed was dry). It was further noted that in removing the facility, the sediments stored above it would be washed downstream, potentially adversely affecting stream habitat. It is further noted that the

on an eagle nest located on the Ranch or just over the property line. However, the nest site(s) is not expected to be on or adjacent to the site.

Based on the local birds' ability to tolerate current and past human activity on their defended territory, they should not be adversely affected in their foraging and patrolling activity over the Ranch if human activity is maintained at a moderate level. If large numbers of hikers were walking all over the ridgelines and open grasslands, the foraging eagles, as well as other foraging raptors, could be discouraged. The same number of hikers in a tight group would be less of a disturbance than if scattered over the property.

Steelhead

At present, Adobe Creek within Lafferty Ranch offers poor habitat for steelhead trout (Bill Cox, CDFG biologist, personal communication). There are several reasons for this condition. The dam/diversion facility near the lower border of Lafferty Ranch includes a 10-12 foot vertical drop which, according to Mr. Cox is a 100% effective block to upstream migration of salmonids. The only way to have steelhead upstream from the dam now would be by planting, which Mr. Cox thinks would probably be illegal at present. Also the amount of good nursery habitat decreases above the dam. Mr. Cox estimates that only one-eighth mile of suitable habitat exists above the dam before reaching the extensive slide area with low-quality habitat. In addition, July field surveys show the stream is dry approximately 100 yards above the diversion facility (though there is surface flow further upstream). Another factor reducing the quality of steelhead habitat is the extensive amount of unstable material adjacent to Adobe Creek in the land slide area. Heavy rains will create siltation problems downstream. Finally the location of the Ranch at the head of the watershed is a negative factor. Migrating steelhead would have to move 1,200 vertical feet up a steep slope just to reach the lower boundary of the Ranch below the dam, with many possible obstructions along the way.

This spring and summer, several fingerling trout were observed below the dam in Adobe Creek near the Ranch border. Also one fingerling, possibly a steelhead, was found in a pool upstream from the landslide area above the dam. There apparently has been recent planting in the area. Although the stream is quite small during the dry season, there are a few adequate-sized shaded pools with appropriately-sized gravel substrate for steelhead nursery sites along the length of Adobe Creek within Lafferty Ranch.

The proposed public access to Lafferty Ranch could have negative impact on any steelhead population that might exist now or in the future. Trail construction and incidental trails produced by off-trail activity of visitors along the stream, particularly in the unstable landslide area could produce increased erosion. If a steelhead population were somehow to be established above the dam with adult fish, poaching could be a problem. Also, poaching could be a problem in the section of the stream below the dam if adult fish ever reach that high up the drainage. Another human-related damage potential would be erosion from cattle breaking down the bank while seeking the stream, or while transversing the landslide area. The final source of human-caused damage to steelhead habitat is the dam itself, which effectively prevents any establishment of a natural population above it in Adobe Creek.

Red-legged Frog

Potential habitat exists for red-legged frog within Lafferty Ranch, particularly at the sag pond near the Ranch entrance. This small pond may not always be permanent. It is lined with non-native willows and planted walnut trees. Nearby is a seasonal wetland that probably does not retain water long enough for red-legged frog production. Also, Adobe Creek, seeps within the landslide zone, and the sedge marsh southeast of the Pfendler residence are potential sites.

Surveys conducted in June, 1997 did not produce any sightings of this species. Pacific tree frogs were abundant at the pond and along Adobe Creek. A western toad occurred at the pond a few weeks after the tree frog hatch. One adult foothill yellow-legged frog was observed at the edge of a shaded pool in Adobe Creek upstream from the landslide zone. Several bullfrog adults were observed at the pond. However, there was no evidence of red-legged frogs on the site.

Bullfrogs are suspected of negatively affecting red-legged frog populations (*California's Wildlife, Volume I*, CDFG, 1988). Bullfrogs require permanent water for development of their larva. It has been observed that in wetlands with diverse habitats and a combination of permanent and seasonal water can support both bullfrogs and red-legged frogs (Alan Buckman, CDFG, personal communication). At present, water from the springbox near the pond is diverted to Adobe Creek. If that water were channeled to the pond and seasonal wetland area near the entrance of the Ranch, a rather large and diverse wetland could be